

Remarks

Reconsideration of this Application is respectfully requested.

Claims 1-5, 14, and 25-27 are pending in the application, with claim 1 being the independent claim.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1-5, 14 and 25-27 remain rejected as allegedly being unpatentable over Maetzke. (Office Action, pages 2-5). Applicants respectfully traverse the rejection.

At least for the reasons stated in Applicants' prior Amendment and Reply of May 20, 2011, the present claims are not *prima facie* obvious over Maetzke because the Examiner has provided no reason to select compound I-b-40 as a lead compound from Maetzke. The Examiner has also provided no reason to modify I-b-40 even assuming it were correctly chosen as a lead compound. See *Daiichi Sankyo Co. v. Matrix Laboratories Ltd.*, 619 F.3d 1346 (Fed. Cir. 2010).

Applicants respectfully disagree with the Examiner's analysis of *Daiichi*, *controlling precedent* in this case. (Office Action, pages 2-5). The Examiner has failed to raise any evidence that the person of ordinary skill in the art would have chosen compound I-b-40 as a lead compound.

The Examiner considers it unnecessary to provide such evidence:

The '902 patent teaches the specific compound (i.e. I-b-40) as an herbicide, even though there is no specific testing results disclosed. However, there are only limited number of the specific compounds are

disclosed to support the claimed genus, and one ordinary skilled in the art understands the utility of said compounds. Unlike a drug required FDA approval for its high-level pharmaceutical utility, the level of skill as an herbicide is not that high. Therefore it is not necessary for all the compounds are tested and disclosed in the specification in order to demonstrate the possession of the claimed invention. The motivation of modifying the lead compound (i.e. 1-b-40) toward the instant claims is structural similarity itself. Compounds with structural similarity possess similar properties is the foundation for Markush claims. Compounds which differ only in the placement of substituents in a ring system is not unobvious absent unexpected results. *In re Jones*, 162 F.2d 638, 74 USPQ 152 (CCPA 1947). The motivation to make the claimed compounds derives from the expectation that knowing properties of one member of series compounds would in general know what to expect in adjacent members with similar activity (i.e. as herbicides). Therefore, the instantly claimed compounds would have been suggested to one skilled in the art, and the rejection is **maintained**.

(Office Action, pages 4-5) Applicants respectfully disagree.

The Examiner has declared compound I-b-40 to be a lead compound without providing any evidence that it should be. The Examiner apparently believes that the person of ordinary skill in the art would have considered compound I-b-40 equivalent to the other exemplified compounds in Maetzke because Maetzke relates to herbicides, an art field not as "high" as the pharmaceutical arts. Nowhere in *Daiichi* does the Court of Appeals for the Federal Circuit state that *Daiichi* is limited to the pharmaceutical arts. Nor does the *Daiichi* rationale require a certain level of skill in the art or a high level of utility. *Daiichi* requires that a reason be identified to select a prior art compound as a lead compound for further modification. As no reason was provided to select compound I-b-40 as a lead compound, no *prima facie* case of obviousness has been established.

Reconsideration and withdrawal of the rejection is respectfully requested.

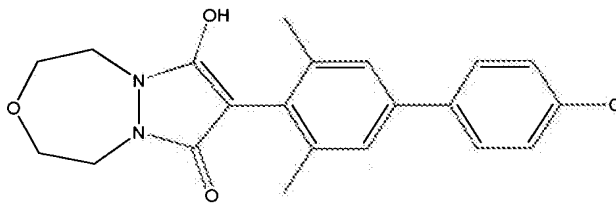
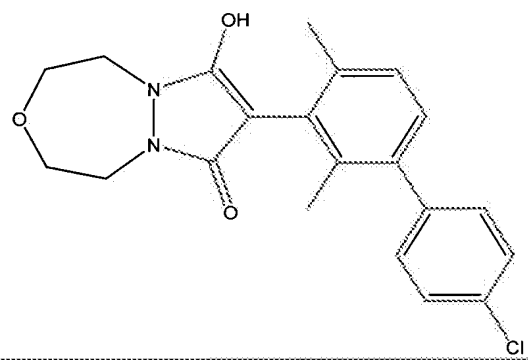
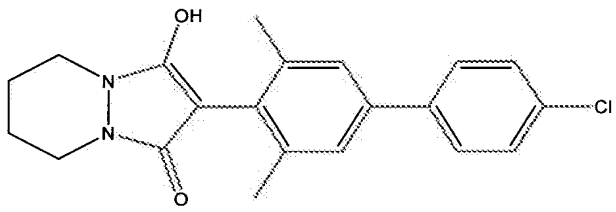
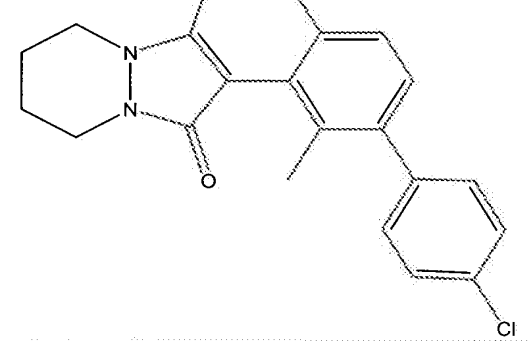
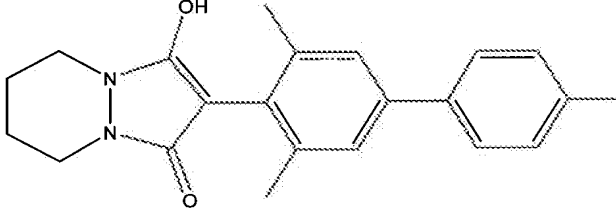
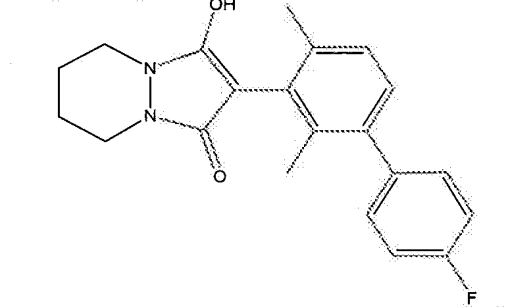
Unexpected Results

The Examiner states that the unsigned Declaration under Rule 37 C.F.R. § 1.132, filed on May 20, 2011, has not been entered because the Declaration is not signed by the person who made the Declaration. (Office Action, page 2). Applicants hereby provide the executed declaration of Dr. Isolde Haeuser-Hahn. Applicants respectfully request consideration and entry of the executed Declaration.

According to the Haeuser-Hahn Declaration, Compound I-1-a-2, the elected species, and compound I-b-40 were applied at a rate of 320 grams per hectare in a pre-emergence herbicide test to compare their control of *Stellaria media*, *Lolium multiflorum*, *Amaranthus retroflexus*, and *Setaria viridis*. Compared to compound I-b-40, compound I-1-a-2 provided unexpectedly superior control of these species in the test.

Applicants also provide herewith the executed Declaration of Dr. Arnd Voerste under 37 C.F.R. § 1.132. Preparations of Compound I-1-a-2, the elected species, and compound I-b-40 were sprayed at a rate of 500 grams per hectare on French beans (*Phaseolus vulgaris*) that were heavily infested with all stages of the two-spotted spider mite. After 6 days the per cent mortality the test populations were determined. Compound I-1-a-2 provided 90% mortality, whereas Compound I-b-40 provided 0% mortality. The data demonstrates that Compound I-1-a-2 acts much differently than the prior art compound against two-spotted spider mites under the described conditions.

Applicants restate herein the results of the Declaration under 37 C.F.R. § 1.132 executed by Dr. Wolfgang Thielert, submitted on April 8, 2009. Table BCS 03-03047 of the Declaration demonstrates that the claimed compounds of formula (I) show unexpected and superior herbicidal activity over the compounds taught by Maetzke:

Maetzke Compounds	Instantly Claimed Compounds
	
I-a-14	I-2-a-35
	
I-b-41	I-1-a-35
	
I-b-29	I-1-a-34

The Thielert Declaration indicates that three different experiments were performed to compare the activity of the claimed compounds to structurally similar compounds taught by Maetzke. (Thielert Declaration, pages 2-3). The results indicate that the claimed compounds of formula (I) exhibit greater activity than the Maetzke compounds in killing beetle larvae (*Phaedon chochleariae*, as seen in experiment 1), fall

armyworm larvae (*Spodoptera frugiperda*, as seen in experiment 2) and instars of green peach aphid (*Myzus persicae*, as seen in experiment 3). (Thielert Declaration, page 4, Table BCS 03-3047). Specifically, the claimed compounds of formula (I) exhibited from 33% to 100% more activity than the Maetzke compounds.

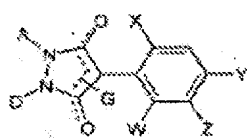
Reconsideration of the claimed invention in view of the unexpected results set forth in the as-filed specification and in the Haeuser-Hahn Declaration, the Voerste Declaration, and the Thielert Declaration is respectfully requested. The unexpected results were observed against a variety of pests under a variety of conditions. The rejection must be withdrawn.

Claim Objection

The Examiner has objected to claims 1-5, 14 and 25-27 based upon the recitation of non-elected subject matter therein. (Office Action, page 5). Applicants respectfully traverse the objection.

On September 23, 2008, the Examiner issued a Restriction Requirement dividing the application into four alleged inventions (I-IV). (Restriction Requirement dated September 23, 2008, page 4). Alleged Group II recites:

"Group II: Claims 1-14, and 19-21, drawn to a compound of the formula (I)



, wherein

A and D together with the atoms to which they are attached represent a saturated or unsaturated 6- or 7-membered ring which optionally contains at least one further heteroatom and which is unsubstituted or substituted in the A,D moiety or represent an optionally substituted 5-membered ring,

and the remaining substituents are defined in claim 1, or a composition comprising a compound thereof." (*Id.*) On November 18, 2008, Applicants elected Group II with traverse.

In the Amendment and Reply dated April 8, 2009, Applicants deleted "non-elected" subject matter from the scope of claims 1-5 and 14. In particular, the subject matter of so-called Group I, compounds where A and D individually represented various alternatives, was deleted. Language covering so-called Group II, where A and D are taken together to form a ring structure, was left in the claims. In the Amendment and Reply dated May 20, 2011, Applicants cancelled claims 6-13 and 15-24. Applicants request the Examiner to particularly point out how present claims 1-5, 14 and 25-27 recite non-elected subject matter.

Reconsideration and withdrawal of the rejection is respectfully requested.

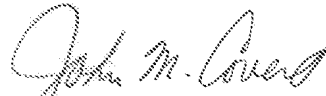
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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